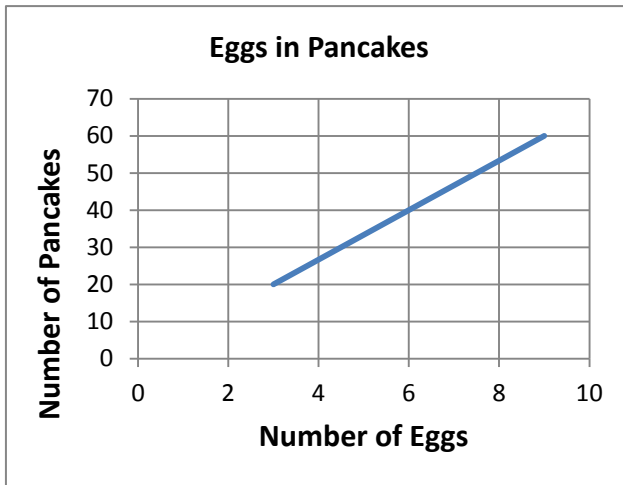


Fractions in Linear Relations

Consider the types of mathematics we typically involve grade 9 students in.

The SHSM Hospitality Class is planning a Pancake Breakfast fundraiser. The pancake recipe that they are planning to use is modeled in the graph below.

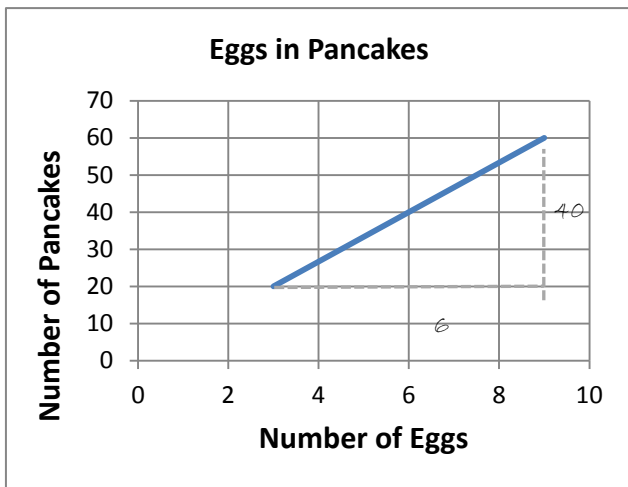


- a) Determine the rate of change (slope) of the graph using a rate triangle.
- b) Explain this value given the context of the graph.
- c) Write the equation for this scenario.
- d) Using the equation, determine the number of pancakes they can cook if they have 2 dozen eggs.

Fractions in Linear Relations

Consider the meaning of the fraction within the various contexts.

The SHSM Hospitality Class is planning a Pancake Breakfast fundraiser. The pancake recipe that they are planning to use is modeled in the graph below.



- a) Determine the rate of change (slope) of the graph using a rate triangle.

$$m = \frac{40}{6} = \frac{20}{3}$$

Fraction as a Part to Part Relationship

- b) Explain this value given the context of the graph.

This means it takes 3 eggs to make 20 pancakes.

Fraction as a Part to Part Relationship

- c) Write the equation for this scenario.

$$p = \frac{20}{3}e$$

Fraction as a Part to Whole Relationship

Fraction as an Operator

- d) Using the equation, determine the number of pancakes they can cook if they have 2 dozen eggs.

$$2 \text{ dozen eggs} = 24 \text{ eggs}$$

$$p = \frac{20}{3}e$$

$$= \frac{20}{3}(24)$$

$$= \frac{20}{1} \frac{(24)}{3}$$

$$= 160$$

\therefore They could make 160 pancakes with 2 dozen eggs.

Fraction as a Part to Whole Relationship

Fraction as an Operator

Fraction as an Operator

Fraction as a Quotient